

Fundamentals of Artificial Intelligence [H02C1a] Xinhai Zou (r0727971)

## Contents

1	Descriptive Statistics	1
2	Visualizing data	1
3	Important Distributions	1
4	Confidence Intervals 4.1 Courses	1 1 2
5	Hypothesis Testing	2
6	Correlation	2
7	Linear Regression	2
8	Selection of Variables	2
9	Analysis of Variance (ANOVA)	2
10	Logistic Rgression	2
11	Introduction to Poisson Regression	2
<b>12</b>	Generalized Linear Model	2
13	DSM: Principal Component Analysis	2
14	DSM: Clustering Analysis	2

- 1 Descriptive Statistics
- 2 Visualizing data
- 3 Important Distributions
- 4 Confidence Intervals
- 4.1 Courses
- 4.1.1 Calculation both lcl and ucl

```
# calculating both lcl and ucl
zsum.text(mean.x=101.4, sigma.x=8, n.x=4, conf.level=0.99)

## Results
## One-sample z-Test

## data: Summarized x
## z = 25.35, p-value < 2.2e-16
## alternative hypothesis: true mean is not equal to 0

## 99 percent confidence interval:
## 91.09668 111.70332

## sample estimates:
## mean of x
## 101.4</pre>
```

- 4.2 Exersice
- 5 Hypothesis Testing
- 6 Correlation
- 7 Linear Regression
- 8 Selection of Variables
- 9 Analysis of Variance (ANOVA)
- 10 Logistic Rgression
- 11 Introduction to Poisson Regression
- 12 Generalized Linear Model
- 13 DSM: Principal Component Analysis
- 14 DSM: Clustering Analysis